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BULLETIN No. 191

YIELDS OF DIFFERENT VARIETIES OF CORN
IN ILLINOIS

By W. L. BURLISON AND O. M. ALLYN



URBANA, ILLINOIS, AUGUST, 1916

SUMMARY OF BULLETIN No. 191

NORTHERN ILLINOIS.—Continued tests have shown that Western Plowman is the highest-yielding variety of corn for northern Illinois. The other leading high-yielding varieties which have been grown for a minimum of four years are: Riley's Favorite, Griffith's Early Dent, Reid's Yellow Dent, Hecker's Red, and Funk's 90-Day. Pages 409-413

CENTRAL ILLINOIS.—At Urbana, seventeen varieties of corn have been under test for five years or more. Reid's Yellow Dent has given the highest yield of any variety grown for a minimum of five years. Boone County White, Leaming, Silvermine, Riley's Favorite, Champion White Pearl, Golden Eagle, Farmer's Interest, Johnson County White, and Beatty's Yellow are other high-yielding strains commonly grown. Pages 411-418

SOUTHERN ILLINOIS.—On well fertilized land in southern Illinois, Funk's 90 Day has given the highest yield of any variety which has been tested for four years or more. The other leading high-yielding varieties tested on fertilized land for a minimum of four years are Reid's Yellow Dent, Perrine's White Pearl, and Chinese Poor Land. On untreated land, Champion White Pearl, Perrine's White Pearl, and Easterly's White have been the highest yielders for three years (1911-1913). Pages 418-422

A BRIEF HISTORY OF CERTAIN VARIETIES OF CORN.

Pages 422-424

YIELDS OF DIFFERENT VARIETIES OF CORN IN ILLINOIS

By W. L. BURLISON, ASSOCIATE CHIEF IN CROP PRODUCTION, AND
O. M. ALLYN, FIRST ASSISTANT IN CROP PRODUCTION

This bulletin is prepared for corn growers who are interested in the comparative yielding powers of new and old varieties of corn grown in the three principal sections of Illinois. It is not possible to say which is the best variety of corn for each section of the state, but the report herein presented cannot fail to be of value in making a choice. The data included represent the results of about fifteen years' investigations conducted, for the most part, at DeKalb, in DeKalb county; Urbana, in Champaign county; and Fairfield, in Wayne county, Illinois. This publication should not be regarded as final, but simply as a report of the progress of the work and the results thus far obtained.

The state of Illinois is characterized by wide differences in climate and soil. Therefore, varieties of corn suited to one locality are not necessarily the most desirable for another. From north to south, the extreme length of the state is about 380 miles. The rainfall for northern Illinois is 33.64 inches per year; for central Illinois, 35.76 inches per year; and for southern Illinois, 40.25 inches per year. The length of the growing season for the northern section is 166 days; for the central section, 173 days; and for the southern section, 188 days, as an average.

The soil on which the experiments at DeKalb and Urbana were conducted, is brown silt loam; at Fairfield, gray silt loam on tight clay. These fields have been regularly supplied for the most part with phosphate rock, limestone, and either farm manure or crop residues. The aim has been to keep the land in a good state of fertility but not to produce abnormal conditions. It is believed that these fields are such as any progressive Illinois farmer would maintain. Methods of culture have been followed which are strictly comparable to those used by leading corn growers. Thus the yields reported are no larger than may well be expected from the respective sections of Illinois.

NORTHERN ILLINOIS

TESTS AT MYRTLE AND SYCAMORE, IN OGLE COUNTY

Variety tests of corn were started at Myrtle, in Ogle county, in 1903. The work was continued thru the season of 1904 and was then moved to Sycamore, in DeKalb county. In 1906 the northern Illinois crop field was established at DeKalb, in the same county, and the work was moved to that field, where it has been conducted up to the present

time. The predominating soil type on which these tests were conducted is brown silt loam, the leading type on which corn is grown in northern Illinois. The results obtained at Myrtle and Sycamore are summarized in Table 1.

TABLE 1.—AVERAGE YIELDS OF VARIETIES GROWN AT MYRTLE AND SYCAMORE:
1903-1905
(Bushels per acre)

Variety	Myrtle 1903	Myrtle 1904	Sycamore 1905	Average yield
Riley's Favorite.....	57.2	45.5	59.6	54.1
Reid's Yellow Dent.....	59.5	46.9	54.4	53.6
Funk's 90 Day.....	55.6	42.9	62.3	53.6
Leaming	54.4	40.3	63.4	52.7
Goldmine	52.2	45.7	59.8	52.6
Pride of the North.....	52.0	46.5	51.4	50.0
Boone County White.....	52.1	37.8	58.4	49.4
White Superior.....	...	47.9	59.4	...
Western Plowman.....	...	45.5	61.0	...
Champion White Pearl.....	...	...	61.6	...
Silvermine	56.9	...	...	...
Golden Eagle	56.3	...	...	...
Farmer's Interest .....	...	34.1	...	...
Lockwood's Yellow Dent.....	...	...	62.2	...

Western Plowman was not grown at Myrtle in 1903, and a three-year average therefore cannot be given for it, as for the first seven varieties listed in Table 1. However, when it is compared on an equal basis with Riley's Favorite, Reid's Yellow Dent, and Funk's 90 Day, using the 1904 and 1905 yields, it out-yielded them, as shown by the following direct comparisons:

	2-year average Bu. per acre
Western Plowman.....	53.3
Riley's Favorite	52.6
Reid's Yellow Dent.....	50.7
Funk's 90 Day	52.6

White Superior, Champion White Pearl, and Lockwood's Yellow Dent, altho showing yields slightly higher than Western Plowman for the years in which they were grown, are considered undesirable for northern Illinois because of their late maturity.

At Myrtle in 1904 and at Sycamore in 1905, the average shrinkage of White Superior was 6.4 percent greater than that of Western Plowman at the same places and the same time. At Sycamore in 1905, the average shrinkage of Lockwood's Yellow Dent was 22.2 percent, and that of Champion White Pearl was 19.7 percent, as compared with 11.5 percent for Western Plowman. However, the yields reported have been computed to a uniform moisture content of 10.7 percent, and are thus strictly comparable.

TESTS AT DEKALB, IN DEKALB COUNTY

The variety tests of corn at the DeKalb field have been conducted, in the main, in a rotation of corn, corn, oats, and clover. Each year, beginning with 1908, the varieties were duplicated in each division containing corn. In each division two systems of farming were practiced—namely, grain and live-stock; and each variety was grown in each system of farming in each division. Thus, normally, each variety was tested under four conditions each year, and the average yields of the varieties for the season were made from these four tests.

Since the highest average yield of a variety does not always indicate the best variety, and in order to establish more definitely the relation of the different varieties with respect to yield, all are compared on the same basis, with Western Plowman as a standard. This at once gives a definite rating of the different varieties when compared with a leading variety.

A summary of the varieties tested at DeKalb from 1907 to 1915 appears in Tables 2 and 3, which present fairly conclusive data as to the higher-yielding and more important varieties.

When the basis of comparison is equal with respect to the numbers of years tested, Western Plowman has never been out-yielded by any variety at DeKalb except by Will County Favorite, which has been tested only two years and is the same variety by origin.

As may be seen in looking over Tables 2 and 3, only the most important varieties have been included in the latter table. The principal high-yielding varieties which have been grown for a minimum of four years are: Western Plowman, Riley's Favorite, Griffith's Early Dent, Reid's Yellow Dent, Hecker's Red, and Funk's 90 Day.

CENTRAL ILLINOIS

TESTS AT URBANA, IN CHAMPAIGN COUNTY

Variety trials on the Urbana field reported in this bulletin have been conducted since 1901. The results given have been obtained from the various trials of corn grown in three rotations as follows:

- (1) Corn, corn, oats, and clover
- (2) Wheat, corn, oats, and clover
- (3) A combination rotation of alfalfa, corn, potatoes, and soybeans

For the most part, the yields are based on a grain and a live-stock system of farming.

The leading varieties are compared with Reid's Yellow Dent as a standard, on the percentage basis. Such a rating renders it possible to make a direct comparison of a given group of tests. The complete data are reported in Table 4. A summary of the Urbana variety trials

TABLE 3.—COMPARABLE AVERAGE YIELDS OF VARIETIES GROWN AT DEKALB USING
WESTERN PLOWMAN AS A STANDARD: 1907-1915
(Bushels per acre)

Variety	Total number of tests	Number of years compared	Years on which comparison is based	Average yield
Western Plowman.....	36	9	1907-1915 inclusive	63.9
Funk's 90 Day.....	33	9	" " "	58.3
Leaming High Ears...	33	9	" " "	41.5
Leaming Low Ears....	33	9	" " "	49.9
Western Plowman.....	28	8	1907-1914 inclusive	67.0
Silvermine	30	8	" " "	58.0
Western Plowman.....	30	7	1908-1915 inclusive except 1914	62.2
Reid's Yellow Dent...	38	7	" " " " " "	57.9
Western Plowman.....	33	6	1907-1913 inclusive except 1908	65.0
Graves' Yellow Dent..	21	6	" " " " " "	55.6
Western Plowman.....	22	6	1908-1913 inclusive	65.9
Leaming	24	6	" " "	59.2
Western Plowman.....	20	6	1907-1913 inclusive except 1909	63.5
Early Golden Surprise.	22	6	" " " " " "	54.2
Western Plowman.....	23	5	1909-1915 except 1913 and 1914	62.4
Griffith's Early Dent..	20	5	" " " " " "	58.3
Western Plowman.....	19	5	1910-1914 inclusive	66.7
Wisconsin No. 7.....	20	5	" " "	55.3
Western Plowman.....	23	5	1911-1915 inclusive	62.6
Hecker's Red	20	5	" " "	58.2
Western Plowman.....	20	4	1912-1915 inclusive	60.7
Riley's Favorite	20	4	" " "	59.0
Western Plowman.....	13	4	1907-1910 inclusive	65.7
Hackberry	14	4	" " "	52.0
Western Plowman.....	12	2	1914-1915 inclusive	59.7
Will County Favorite ¹ .	8	2	" " "	60.1
Western Plowman.....	12	2	1914-1915 inclusive	59.7
Strout's Red	8	2	" " "	57.0
Western Plowman.....	7	2	1908-1909 inclusive	70.8
Champion White Pearl.	8	2	" " "	46.7

¹Will County Favorite is practically the same as Western Plowman. Both originated in the same way. See history of Western Plowman, page 424.

from 1901 to 1915 is given in Table 5. The yields are calculated to a uniform moisture content of 10.7 percent. Reid's Yellow Dent, Boone County White, Champion White Pearl, Leaming, Silvermine, and Riley's Favorite are leading varieties for central Illinois. Other high yielding strains commonly grown are Golden Eagle, Farmer's Interest, Johnson County White, and Beatty's Yellow.

OTHER CENTRAL ILLINOIS TESTS

In 1903 variety tests were conducted at Decatur, in Macon County; Auburn, in Sangamon county; and Sibley, in Ford county. The work

TABLE 4.—*Concluded*

Variety	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	Percentage rating of varieties
Western Plowman	56.3	27.4	...	...	...	...	104.8
Will County Favorite.....	33.6	77.5	...	...	...	...	...	...	...	54.4	24.7	...	...	...	...	99.0
Burr's White	88.3
Wisconsin No. 7.....	52.5	...	...	...	...	21.7	...	...	...	...	79.3
Legal Tender	84.8	36.4	...	...	...	...	...	...	...	...	...	...	...	...	95.9
Funk's Calico	88.6	50.6	...	...	...	...	...	...	...	...	...	...	...	...	110.1
Mastodon	34.8	...	...	...	...	...	...	...	...	...	...	...	...	...
Minnesota No. 13.....	41.3	...	...	...	...	27.8	...	...	...	...	...
Griffith's Early Dent.....
St. Charles White.....	54.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Edmond's Yellow Dent..	33.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Banner White	79.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peerless White	76.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pride of Nishua.....	...	73.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pride of Illinois.....	...	74.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Funk's Yellow Dent.....	...	59.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Golden Surprise	18.8	...	...	...	...	...
Hecker's Red.....	22.6	...	...	...	...	...

TABLE 5.—COMPARABLE AVERAGE YIELDS OF VARIETIES GROWN AT URBANA USING REID'S YELLOW DENT AS A STANDARD: 1901-1915
(Bushels per acre)

Variety	Total number of tests	Number of years compared	Years on which comparison is based	Average yield
Reid's Yellow Dent..	193	15	1901-1915 inclusive	62.0
Boone County White..	98	15	" " "	60.3
Leaming	95	15	" " "	59.2
Silvermine	80	15	" " "	57.4
Riley's Favorite	58	15	" " "	56.1
Reid's Yellow Dent..	170	12	1901 and 1905-1915 inclusive	61.0
Champion White Pearl	66	12	" " " " "	57.6
Reid's Yellow Dent..	171	13	1901-1907 and 1910-1915 inclusive	61.3
Golden Eagle	50	13	" " " " " "	53.4
Reid's Yellow Dent..	164	13	1903-1915 inclusive	61.8
Illinois High Protein	36	13	" " "	43.7
Illinois Low Protein..	36	13	" " "	54.9
Illinois High Oil.....	36	13	" " "	48.3
Illinois Low Oil.....	36	13	" " "	49.4
Reid's Yellow Dent..	157	10	1906-1915 inclusive	61.9
Leaming High Ears..	32	10	" " "	46.1
Leaming Low Ears...	32	10	" " "	53.5
Reid's Yellow Dent..	22	5	1901 and 1903-1906 inclusive	62.8
Farmer's Interest....	18	5	" " " " "	62.6
Reid's Yellow Dent..	130	5	1902, 1903, 1909-1911 inclusive	54.4
Johnson County White	20	5	" " " " "	52.3
Reid's Yellow Dent..	24	5	1903 and 1905-1908 inclusive	67.2
Beatty's Yellow	12	5	" " " " "	63.4
Reid's Yellow Dent..	132	9	1903-1911 inclusive	61.5
Chinese Poor Land...	19	9	" " "	54.8

at Decatur and Auburn was discontinued after 1903, but at Sibley it was continued until 1907, making a total of five years for this field. At Mattoon, in Coles county, the work was conducted during 1904 and 1905. The results of the tests are summarized in Table 6.

Of the fifteen varieties tested at the places mentioned in Table 6, Reid's Yellow Dent, on an equal basis of comparison (the same number of years at the same field), was out-yielded by three varieties; namely, Funk's Yellow Dent, Farmer's Interest, and White Superior. In any case, however, the difference was not marked, and not much reliance can be placed on the two years' results from these varieties.

In Table 7 are reported some of the results of the first test conducted in central Illinois to determine the yields of the more important varieties of corn then in use.¹ This test was started in 1888 at Urbana and continued until 1895. The yields are based on air-dry corn containing 11 percent of moisture. Boone County White, Champion White Pearl, and Leaming were then, as now, among the highest-yielding varieties.

¹For original report see Bulletin 42 of this station.

TABLE 6.—AVERAGE YIELDS OF VARIETIES GROWN AT DECATUR, AUBURN, MATTOON, AND SIBLEY, AND PERCENTAGE RATING USING REID'S YELLOW DENT AS A STANDARD: 1903-1907
(Bushels per acre)

Variety	Decatur 1903	Auburn 1903	Mattoon		Sibley					Percentage rating of varieties
			1904	1905	1903	1904	1905	1906	1907	
Reid's Yellow Dent.....	52.6	45.9	48.5	58.6	87.8	70.4	61.8	48.8	27.9	100.0
Leaming	51.3	42.0	48.4	63.2	85.4	62.8	60.0	47.6	26.1	97.0
Boone County White.....	50.0	44.5	41.8	59.0	84.4	66.1	64.3	46.3	27.9	96.4
Silvermine	48.6	44.1	45.8	60.5	76.8	65.8	63.7	43.8	24.3	94.3
Golden Eagle.....	52.2	42.4	...	50.6	86.7	...	60.7	41.5	25.3	93.6
Funk's 90 Day.....	...	...	...	60.8	81.2	62.8	61.6	...	...	95.6
Riley's Favorite .....	...	...	...	...	79.2	62.4	64.2	42.2	23.9	91.7
Pride of the North.....	...	...	...	...	76.4	57.6	54.9	...	...	85.9
Beatty's Yellow .....	...	40.8	38.9	57.9	...	57.5	63.0	49.6	27.7	92.6
Funk's Yellow Dent.....	...	...	42.7	67.3	...	...	...	...	...	102.6
Farmer's Interest .....	...	...	48.7	58.2	...	...	65.0	47.7	...	100.9
Champion White Pearl.....	...	...	...	...	...	...	...	33.2	22.7	72.9
Chinese Poor Land.....	...	...	...	...	...	...	...	39.4	23.3	81.8
White Superior .....	...	...	...	...	...	66.3	67.2	...	...	101.1
Calico .....	...	...	...	...	...	66.8	...	...	...	...

TABLE 7.—AVERAGE YIELDS OF VARIETIES GROWN AT URBANA: 1888-1895
(Bushels per acre)

Variety	1888	1889	1890	1891	1892	1893	1894	1895	Average
Champion White Pearl.....	70.0	94.8	74.9	76.5	65.0	37.3	51.0	100.3	71.2
Leaming	86.6	80.6	69.4	67.3	70.1	34.6	62.1	80.0	68.6
Burr's White	85.9	75.7	67.7	67.7	64.2	38.6	69.7	79.2	68.6
Clark's Iroquois	68.5	81.9	59.0	65.4	72.9	30.7	44.3	102.5	65.6
Legal Tender	84.2	68.9	60.0	56.8	60.3	33.8	57.0	89.0	63.7
Murdock	80.3	65.0	61.6	59.8	57.6	35.7	48.1	85.9	61.7
Edmond's	83.7	66.3	55.9	58.6	58.4	28.3	54.3	86.1	61.4
Riley's Favorite	81.8	66.1	53.3	56.1	74.1	38.1	62.8	52.2	60.5
Boone County White.....	...	...	74.6	89.3	85.5	33.8	74.3	73.2	71.8
Golden Beauty .....	...	...	53.0	75.8	63.1	36.4	31.6	38.0	49.6

SOUTHERN ILLINOIS

TESTS AT FAIRFIELD, IN WAYNE COUNTY

Variety tests of corn in southern Illinois were started in 1906, when the southern crop field was established at Fairfield, in Wayne county. The field is located on gray silt loam on tight clay, which constitutes a large area of the southern third of the state and which is low in fertility. Live-stock and grain systems of farming were practiced on each division of the field; and, with respect to systems of farming and drainage, each of the varieties of corn was grown under each of four conditions each season.

A summary of the results of the tests at Fairfield from 1907 to 1915 appears in Tables 8 and 9. There are no data for 1914, when there was a failure of crops due to hot winds and drouth. Data for 1906 are excluded from the table because the yields were not calculated to the same moisture content as were those for 1907 to 1915. Table 9 shows for southern Illinois what Table 3 does for northern Illinois.

On a percentage basis, using Funk's 90 Day as a standard to which the other varieties are compared, the following, in the order named, yielded the highest for a minimum of four years: Funk's 90 Day, Reid's Yellow Dent, Perrine's White Pearl, and Chinese Poor Land. Other varieties, such as Sutton's Favorite, Strout's Red, Will County Favorite, and Western Plowman, which have been tested only one year, show a promising future. Continued experiment will establish their value.

RESULTS OF EXPERIMENTS ON UNTREATED LAND IN SOUTHERN ILLINOIS

In connection with the regular work on the crop field at Fairfield, additional tests were made on untreated land close to the field. The results indicate what one would naturally expect,—that varieties

TABLE 9.—COMPARABLE AVERAGE YIELDS OF VARIETIES GROWN AT FAIRFIELD USING
FUNK'S 90 DAY AS A STANDARD: 1907-1915
(Bushels per acre)

Variety	Total number of tests	Number of years compared	Years on which comparison is based	Average yield
Funk's 90 Day.....	30	8	1907-1915 except 1914	41.0
Reid's Yellow Dent...	30	8	" " " "	39.8
Champion White Pearl.	64	8	" " " "	36.6
Silvermine	30	8	" " " "	36.6
Leaming Low Ears....	29	8	" " " "	34.1
Leaming High Ears...	29	8	" " " "	29.1
Funk's 90 Day.....	26	7	1907-1913 inclusive	40.6
Perrine's White Pearl.	26	7	" " " "	38.0
Graves' Yellow Dent..	26	7	" " " "	36.5
Easterly's White	26	7	" " " "	35.7
Funk's 90 Day.....	26	7	1907-1915 except 1909 and 1914	42.0
Boone County White..	26	7	" " " " " "	35.9
Funk's 90 Day.....	26	7	1907-1915 except 1912 and 1914	39.8
Riley's Favorite	26	7	" " " " " "	34.0
Funk's 90 Day.....	14	4	1907-1911 except 1908	47.8
Chinese Poor Land....	14	4	" " " "	47.6
Funk's 90 Day.....	14	4	1907-1909 inclusive and 1913	33.8
Golden Eagle	14	4	" " " " " "	28.6
Funk's 90 Day.....	12	3	1908-1910 inclusive	47.8
Native White	12	3	" " " "	41.6
Funk's 90 Day.....	8	2	1912 and 1913	27.4
Leaming	8	2	" " " "	25.8
Funk's 90 Day.....	2	1	1907	57.8
Pride of the North....	2	1	"	30.2
Hickory King	2	1	"	30.2
Worthen's White	2	1	"	52.3
Funk's 90 Day.....	4	1	1912	49.7
Red, White and Blue..	4	1	"	41.1
Rinard's Native	4	1	"	49.8
Funk's 90 Day.....	4	1	1915	43.5
Sutton's Favorite	4	1	"	47.0
Strout's Red	4	1	"	44.1
Will County Favorite..	4	1	"	42.8
Western Plowman.....	4	1	"	42.6
Hecker's Red	4	1	"	37.8

grown commonly in southern Illinois and adapted to the soil out-yield those which give the best results under less adverse conditions. The results are presented in Table 10.

Further information on this point is obtained by examining the yields of Funk's 90 Day and Champion White Pearl produced in 1915 on treated and on untreated land, as presented in Table 11. At Newton, Champion White Pearl gave better returns on the untreated land than Funk's 90 Day, and on all the treated plots, except in one instance, it produced more corn than Funk's 90 Day. At Ob-

TABLE 10.—YIELDS OF VARIETIES ON UNTREATED LAND AT FAIRFIELD: 1911–1913
(Bushels per acre, 75 pounds of ear corn to the bushel)

Variety	1911	1912	1913	3-year average
Champion White Pearl.....	15.3	5.3	5.5	8.7
Perrine's White Pearl.....	11.0	6.6	6.7	8.1
Easterly's White	10.2	7.7	5.8	7.9
Reid's Yellow Dent.....	9.2	5.8	5.1	6.7
Boone County White.....	9.9	3.0	6.7	6.5
Funk's 90 Day.....	8.1	5.1	5.4	6.2
Silvermine	7.7	4.5	5.1	5.8
Graves' Yellow Dent.....	8.7	3.9	4.4	5.7
Leaming Low Ears.....	7.0	3.1	4.2	4.8
Riley's Favorite	8.4	..	6.0	..
Leaming .....	..	7.4	4.6	..
Rinard's White Prolific.....	12.8	..	..	..
Chinese Poor Land.....	12.2	..	..	..
Rinard's Yellow Prize Winner.....	11.9	..	..	..
Red, White and Blue.....	..	5.5	..	..
Golden Eagle .....	..	..	5.1	..
Leaming High Ears.....	..	4.0	..	..
Rinard's Native .....	..	4.0	..	..

TABLE 11.—AVERAGE YIELDS OF FUNK'S 90 DAY AND CHAMPION WHITE PEARL
ON TREATED AND ON UNTREATED LAND: 1915
(Bushels per acre)

Plot No.	Treatment	Newton field		Oblong field	
		Funk's 90 Day	Champion White Pearl	Funk's 90 Day	Champion White Pearl
101	O ¹	4.0	4.8	23.2	39.8
102	M.....	5.2	4.0	40.4	50.2
103	ML.....	13.2	18.0	50.6	53.0
104	MLP.....	15.2	20.0	43.4	59.6
105	O.....	8.4	9.6	20.8	36.0
106	R.....	5.6	10.0	24.4	37.4
107	RL.....	11.2	20.0	38.0	46.6
108	RLP.....	16.0	21.2	46.4	52.4
109	RLPK.....	16.8	20.0	54.4	58.6
110	O.....	1.6	4.0	16.0	30.6

¹O=no treatment; L=limestone; K=potassium; M=farm manure; P=phosphorus; R=crop residues.

long, Champion White Pearl produced decidedly higher yields than Funk's 90 Day on all plots, both treated and untreated.

Champion White Pearl, Perrine's White Pearl, and Easterly's White varieties have been grown in southern Illinois until they have become well adapted to conditions obtaining there. Varieties such as Reid's Yellow Dent and Funk's 90 Day, which have been grown under the more favorable soil conditions of central Illinois, cannot compete with adapted varieties on the poor land of southern Illinois. But

where the soil is enriched, they produce, in favorable seasons, larger yields than the varieties commonly found in that section, as may readily be seen from Table 8.

A BRIEF HISTORY OF CERTAIN VARIETIES OF CORN

It is impossible to give a detailed account of the origin and development of all the varieties of corn mentioned in this bulletin, because, in many cases, nothing is known concerning the source of the different types.

Boone County White was originated by Mr. James Riley of Indiana in 1876. The parent type was known as White Mastodon, which was a coarse, late-maturing variety. In 1882 some of the seed was brought to Champaign county by Mr. O. C. Black. The variety matures in 115 to 125 days.

Champion White Pearl originated thru the crossing and recrossing of several varieties of dent corn from different states. Mr. James C. Suffern of Piatt county, Illinois, states that he used for the cross Hickory King, Ohio White Dent, Wisconsin White Dent, White Normandy (from Missouri), and about ten other varieties from Iowa, Indiana, Pennsylvania, New Jersey, Kansas, Kentucky, and Nebraska. The crossing processes were followed by about twenty years of continuous systematic selection. This variety matures in about 110 to 115 days.

Chinese Poor Land was brought to this country from China about 1898. It is a white variety, and matures in 100 to 115 days. The seed was furnished the Station by Mr. George Olendorph of Marion county, Illinois.

Easterly's White was developed from Boone County White. The original seed was secured from Mr. A. P. Grout in 1901. Mr. H. G. Easterly of Jackson county, Illinois, changed the name to Easterly's White. Ordinarily the variety develops fully in 115 to 125 days.

Funk's 90 Day was originated from one-half bushel of a variety known as Little Early Murdock. Mr. E. D. Funk purchased the seed from the University of Illinois in 1892 and began to improve it in 1901. It is a yellow variety which matures in about 90 to 100 days.

Golden Eagle was originated by Mr. H. B. Perry of Stark county, Illinois, by selecting seed from the so-called Mason County Yellow corn, beginning in 1871. It matures in about 110 days from the time of planting.

Golden Glow was produced by crossing Wisconsin No. 8 and a variety of yellow corn known as North Star. Professor R. A. Moore of the University of Wisconsin states that the result of this cross was perfected by putting it thru an ear-to-row test for about ten years. In Wisconsin this is one of the most widely known varieties and is one of the earliest maturing in that section.

Golden King was first selected thirty years ago from a variety known as Hamm corn. Mr. W. L. Mills of Putnam county, Illinois, purchased seed of this variety about twenty years ago and produced a cross with Leaming. For about ten years Mr. Mills has grown this hybrid corn with success. From 110 to 125 days are necessary for its full development.

Golden Surprise is the result of a hybrid which was originated in 1890 by Mr. Simon Bell and son, of Perry county, Ohio. The variety was produced by crossing an unknown type and a small-eared, amber-colored corn known as Shoepeg. This variety matures in about 100 days.

Griffith's Early Dent was produced by Mr. H. K. Smith, after whom it was named Smith's Yellow Dent. It is the result of a cross of Pride of the North and a variety known as Coe, which was brought from Ohio about sixty years ago. The variety produced by the cross mentioned matures in about 95 to 100 days, and is a yellow corn, larger than Pride of the North. After Mr. Smith's death, Mr. W. G. Griffith took charge of the improvement of this variety and changed the name to Griffith's Early Dent.

Leaming is said to be the oldest improved variety of corn. It was originated by Mr. J. S. Leaming of Wilmington, Ohio, in 1826. At that time Mr. Leaming began selecting seed from the ordinary yellow corn grown on the Little Miami bottoms, Hamilton county, Ohio, and selected toward a standard type for fifty-six years, after which the work was continued by his son, J. S. Leaming, Jr. This is a yellow corn which matures in about 110 days.

Murdock's Yellow Dent is a favorite early corn for southern Wisconsin, where, it is said, this variety has been grown longer than any other. It has been improved by the University of Wisconsin and by farmers of the state until it has reached a rather high degree of productivity.

Perrine's White Pearl has been grown for about twelve years by Mr. G. D. Perrine and sons of Marion county, Illinois. The original seed was purchased from a dealer in Coles county. Usually this variety matures in 115 to 125 days.

Reid's Yellow Dent was originated by Mr. Robert Reid, who, in 1846, brought a rather late maturing variety known as Gordon Hopkins corn, from Brown county, Ohio, to Tazewell county, Illinois. This corn was reddish colored, and was widely grown in the vicinity in which Mr. Reid lived. The seed was planted near Delavan, Illinois, late in the spring of 1846, and a fair yield of immature corn was harvested. From this, seed was selected for the following crop, but on account of immaturity a poor stand resulted. In the spring of 1847, missing hills were replanted with seed of a little yellow corn, a rather early-maturing variety grown quite generally in Tazewell county at that time. By this replanting it is supposed that a cross

was produced between the two varieties. Seed from this crop furnished the foundation for Reid's Yellow Dent, which has been in the hands of members of the Reid family until very recently. It matures in about 110 to 120 days.

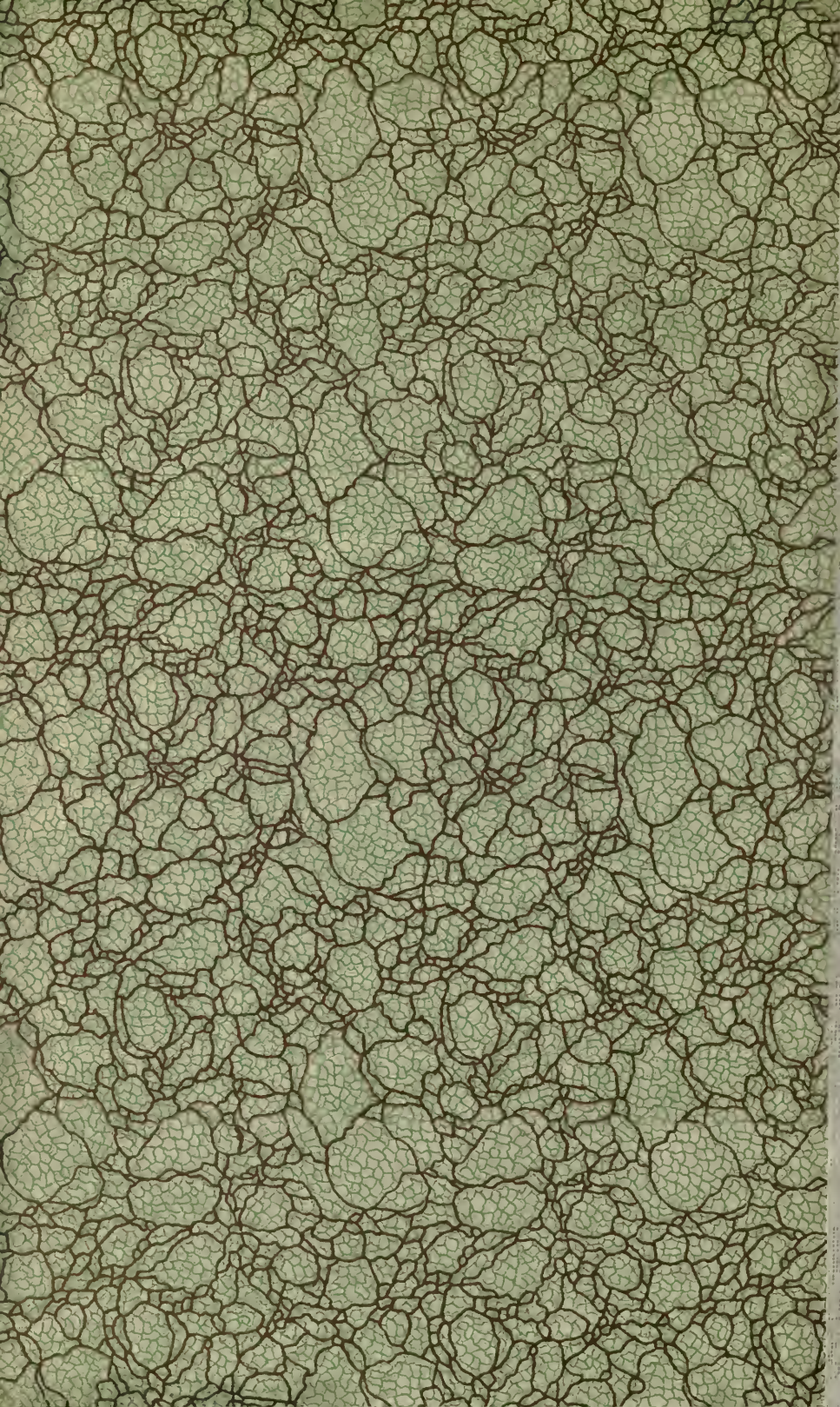
Riley's Favorite was originated in 1883 by Mr. James Riley of Indiana, who developed Boone County White. It is the result of a cross between Golden Yellow, a large, late corn, and Pride of the North, a small, early corn. As a rule, 100 to 110 days are required for maturing.

Silvermine, later known as Iowa Silvermine, was originated by Mr. J. H. Beagley of Ford county, Illinois, from seed selected from a prize-winning exhibit of white corn at the Ford County Farmers' Institute in 1890. After sufficient corn had been grown to plant a twenty-acre field, the crop was sold to the Iowa Seed Company, who named the variety Iowa Silvermine, and sold large quantities of the seed to Illinois farmers. This variety has been developed by selection, and no crossing or mixing of varieties has occurred. It is a white corn, and requires 100 to 110 days for maturing.

Strout's Red was developed from a variety called Molasses. Originally the color ranged from deep red to almost black. Some ears were dingy white. Mr. E. J. Strout, of LaSalle county, Illinois, has given this variety special attention during the last sixteen years. It matures in 100 to 105 days.

Sutton's Favorite was introduced into Marion county from Cass county, Illinois, by Mr. T. N. Sutton, in about 1875. The variety has not been materially changed from the time of its early introduction. Details of the early history of this corn are very meager, but the parent strain seems to have been known as Faulkner. It is a white corn and matures in about 115 to 125 days.

Western Plowman and *Will County Favorite* were originated about twenty years ago by Mr. William Green and Mr. William Webb. These men were seeking an early-maturing corn which would be suitable for conditions in Will county, Illinois. Mr. Green was at that time growing a rather coarse yellow corn which he called Western Plowman. This strain was late, but it was a heavy yielder when the seasons were long enough for full maturing. Mr. Webb was growing a variety known as Golden Yellow Dent. This was an attractive early corn, but the ears were very small. Western Plowman, Golden Yellow Dent, and a variety known as Edmond's were mixed, and grown so that crossing would result, and from the harvest of this triple combination Mr. Green and Mr. Webb each took a half-bushel of seed. The former assigned to his strain the name of Western Plowman, and the latter, Will County Favorite. Both men afterwards continued to select and breed the corn until the strains were properly developed. Both varieties are yellow and mature fairly early.





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